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CANADIAN EXPLORATION SERVICES LTD

TIGER GOLD EXPLORATION CORPORATION

Q2154 – Harker Heritage Property - Area 9 VLF Survey

C Jason Ploeger, P.Geo – February 27, 2017

Abstract

CXS was contracted to perform VLF reconnaissance survey to assist in tying historic surveys together and locate potential new target areas. A total of 7.15 kilometres of traverses were performed over the Harker Heritage Property Area 9.

TIGER GOLD EXPLORATION CORPORATION

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1. SURVEY DETAILS

1.1 PROJECT NAME

This project is known as the Harker Heritage Property – Area 9.

1.2 CLIENT

TIGER GOLD EXPLORATION CORPORATION,

103 Government Road. Kirkland Lake, Ontario P2N 1A9

1.3 LOCATION

The Harker Heritage Property is located approximately 50 km northeast of Kirkland Lake, Ontario. The property consists of 375 mining claims comprising of over 850 units spanning Clifford, Elliott, Harker, Holloway, Tannahill and Marriott Townships within the Larder Lake Mining Division.



Figure 1: Location of the Harker Heritage Property



1.4 ACCESS

Access to the property was attained with a 4x4 truck via highway 672 and highway 101. Numerous forestry access roads and trails were travelled by snowmobile to access the various parts of the property.

Area 9 is located within Harker and Holloway Townships. Access to this area was via highway 672. Approximately 40 kilometers north of its intersection with highway 66, the property crosses the highway. From this location, a snowmobile was used to access the traverse area.

1.5 SURVEY AREA

The survey area was designed to be a reconnaissance survey through the claim group. The traversed lines were established using a GPS in conjunction with the execution of the survey and were based on topography and a path of least resistance.

The traverse for Area 9 covers a portion of mining claims 760964, 760394, 669799, 735602, 735603, 735604, 760965, 760395, 760966, 760396, 760397, 669795, 678800 and 737981 which are located in Harker Township within the Larder Lake Mining Division.



2. SURVEY WORK UNDERTAKEN

2.1 SURVEY LOG

Date	Description	Total Survey (km)
March 23, 2016	Locate area 9 and perform	745
	magnetic survey.	7.15

Table 1: Survey Log

2.2 PERSONNEL

Bruce Lavalley and Claudia Moraga both of Britt, Ontario operated the VLF EM systems along with the performing the GPS navigation.

2.3 SURVEY SPECIFICATIONS

The survey was conducted with a GSM-19 v7 VLF.

A total of 7.15 line kilometers of Magnetometer was read over the Harker Heritage Property area 9 on March 23rd, 2016. This consisted of 286 VLF EM samples taken at an approximate 25 metre sample interval.



VLF EM Survey Harker Heritage Property Harker Township, Ontario Tiger Gold Exploration Corporation

3. OVERVIEW OF SURVEY RESULTS

3.1 SUMMARY



Figure 2: VLF EM In-Phase Readings

The purpose of the VLF survey was as a reconnaissance a survey and to assist in tying historic surveys together and locate potential new target areas. A total of 7.15 kilometres of traverses were performed over areas 9. With the randomness of the survey path the operator paced approximately 25 meters. At each VLF measurement, the operator faced north during the measurement as to keep the measurements consistent.

The only culture encountered throughout the reconnaissance area was noted at the



eastern most end of the traverse. This was the highway 672.

Two regions of interest are highlighted from the VLF EM reconnaissance survey. Area 1 represents a region over claims 760964 and 760394. The response over these areas appears as a inphase low to the north and a high through the central claims. This most likely represents a broad VLF EM response exists in this region. I would recommend a north south grid be cut over this area and a more detailed VLF EM survey be conducted. An IP survey may also be merited over this to determine if deiminated mineralization occurs.

The second area of note occurs near the west claim boundary of mining claim 760395. This appears as a sharp inphase low response. The strength of this response indicates a good conductive horizon is most likely present. I would recommend a more detailed reconnaissance survey over this region to determine probable orientation.



APPENDIX A

STATEMENT OF QUALIFICATIONS

- I, C. Jason Ploeger, hereby declare that:
- 1. I am a professional geophysicist with residence in Larder Lake, Ontario and am presently employed as a Geophysicist and Geophysical Manager of Canadian Exploration Services Ltd. of Larder Lake, Ontario.
- 2. I am a Practicing Member of the Association of Professional Geoscientists, with membership number 2172.
- 3. I graduated with a Bachelor of Science degree in geophysics from the University of Western Ontario, in London Ontario, in 1999.
- 4. I have practiced my profession continuously since graduation in Africa, Bulgaria, Canada, Mexico and Mongolia.
- 5. I am a member of the Ontario Prospectors Association, a Director of the Northern Prospectors Association and a member of the Society of Exploration Geophysicists.
- 6. I do not have nor expect an interest in the properties and securities of **Tiger Gold Exploration Corporation.**
- 7. I am responsible for the final processing and validation of the survey results and the compilation of the presentation of this report. The statements made in this report represent my professional opinion based on my consideration of the information available to me at the time of writing this report.



C. Jason Ploeger, P.Geo., B.Sc. Geophysical Manager Canadian Exploration Services Ltd.

> Larder Lake, ON February 27, 2017



APPENDIX B

THEORETICAL BASIS AND SURVEY PROCEDURES

VLF EM SURVEY

The frequency domain VLF electromagnetic survey is designed to measure both the vertical and horizontal in-phase (IP) and Quadrature (OP) components of the anomalous field from electrically conductive zones. The sources for VLF EM surveys are several powerful radio transmitters located around the world which generate EM radiation in the low frequency band of 15-25kHZ. The signals created by these long-range communications and navigational systems may be used for surveying up to several thousand kilometers away from the transmitter. The quality of the incoming VLF signal can be monitored using the field strength. A field strength above 5pT will produce excellent quality results. Anything lower indicates a weak signal strength, and possibly lower data quality. A very low signal strength (<1pT) may indicate the radio station is down.

The EM field is planar and horizontal at large distances from the EM source. The two components, electric (E) and magnetic (H), created by the source field are orthogonal to each other. E lies in a vertical plane while H lies at right angles to the direction of propagation in a horizontal plane. In order to ensure good coupling, the strike of possible conductors should lie in the direction of the transmitter to allow the H vector to pass through the anomaly, in turn, creating a secondary EM field.

The VLF EM receiver has two orthogonal aerials which are tuned to the frequency of the transmitting station. The direction of the source station is located by rotating the sensor around a vertical axis until a null position is found. The VLF EM survey procedure consists of taking measurements at stations along each line on the grid. The receiver is rotated about a horizontal axis, right angles to the traverse and the tilt recorded at the null position.



APPENDIX C

GSM 19



Specifications

Overhauser Performance

Resolution: 0.01 nT Relative Sensitivity: 0.02 nT Absolute Accuracy: 0.2nT Range: 20,000 to 120,000 nT Gradient Tolerance: Over 10,000nT/m Operating Temperature: -40°C to +60°C

Operation Modes

Manual: Coordinates, time, date and reading stored automatically at min. 3 second interval.

Base Station: Time, date and reading stored at 3 to 60 second intervals. Walking Mag: Time, date and reading stored at coordinates of fiducial. Remote Control: Optional remote control using RS-232 interface. Input/Output: RS-232 or analog (optional) output using 6-pin weatherproof connector.

Operating Parameters

Power Consumption: Only 2Ws per reading. Operates continuously for 45 hours on standby.

Power Source: 12V 2.6Ah sealed lead acid battery standard, other batteries available

Operating Temperature: -50°C to +60°C

Storage Capacity

Manual Operation: 29,000 readings standard, with up to 116,000 optional. With 3 VLF stations: 12,000 standard and up to 48,000 optional.

Base Station: 105,000 readings standard, with up to 419,000 optional (88 hours or 14 days uninterrupted operation with 3 sec. intervals)

Gradiometer: 25,000 readings standard, with up to 100,000 optional. With 3 VLF stations: 12,000, with up to 45,000 optional.



Omnidirectional VLF

Performance Parameters: Resolution 0.5% and range to $\pm 200\%$ of total field. Frequency 15 to 30 kHz.

Measured Parameters: Vertical in-phase & out-of-phase, 2 horizontal components, total field coordinates, date, and time.

Features: Up to 3 stations measured automatically, in-field data review, displays station field strength continuously, and tilt correction for up to $\pm 10^{\circ}$ tilts.

Dimensions and Weights: 93 x 143 x 150mm and weighs only 1.0kg.

Dimensions and Weights

Dimensions: Console: 223 x 69 x 240mm Sensor: 170 x 71mm diameter cylinder Weight: Console: 2.1kg Sensor and Staff Assembly: 2.0kg

Standard Components

GSM-19 magnetometer console, harness, battery charger, shipping case, sensor with cable, staff, instruction manual, data transfer cable and software.

Taking Advantage of a "Quirk" of Physics

Overhauser effect magnetometers are essentially proton precession devices except that they produce an order-of magnitude greater sensitivity. These "supercharged" quantum magnetometers also deliver high absolute accuracy, rapid cycling (up to 5 readings / second), and exceptionally low power consumption.

The Overhauser effect occurs when a special liquid (with unpaired electrons) is combined with hydrogen atoms and then exposed to secondary polarization from a radio frequency (RF) magnetic field. The unpaired electrons transfer their stronger polarization to hydrogen atoms, thereby generating a strong precession signal-- that is ideal for very high-sensitivity total field measurement. In comparison with proton precession methods, RF signal generation also keeps power consumption to an absolute minimum and reduces noise (i.e. generating RF frequencies are well out of the bandwidth of the precession signal).

In addition, polarization and signal measurement can occur simultaneously - which enables faster, sequential measurements. This, in turn, facilitates advanced statistical averaging over the sampling period and/or increased cycling rates (i.e. sampling speeds).



• The unique Overhauser unit blends physics, data quality, operational efficiency, system design and options into an instrumentation package that ... exceeds proton precession and matches costlier optically pumped cesium capabilities



VLF EM Survey Harker Heritage Property Harker Township, Ontario Tiger Gold Exploration Corporation

APPENDIX C

GARMIN GPS MAP 62S



Physical & Performance:					
Unit dimensions, WxHxD:	2.4" x 6.3" x 1.4" (6.1 x 16.0 x 3.6 cm)				
Display size, WxH:	1.43" x 2.15" (3.6 x 5.5 cm); 2.6" diag (6.6 cm)				
Display resolution, WxH:	160 x 240 pixels				
Display type:	transflective, 65-K color TFT				
Weight:	9.2 oz (260.1 g) with batteries				
Battery:	2 AA batteries (not included); NiMH or Lithium recom- mended				
Battery life:	20 hours				
Waterproof:	yes (IPX7)				
Floats:	no				
High-sensitivity re- ceiver:	yes				



Interface:	high-speed USB	and NMEA 0183 compatible				
Maps & Memory:						
Basemap:		yes				
Preloaded maps:		no				
Ability to add maps:		yes				
Built-in memory:		1.7 GB				
Accepts data cards:		microSD™ card (not included)				
Waypoints/favorites/loc	ations:	2000				
Routes:		200				
Track log:		10,000 points, 200 saved tracks				
Features & Benefits:						
Automatic routing (turn	by turn routing	yes (with optional mapping for detailed				
on roads):		roads)				
Electronic compass:		yes (tilt-compensated, 3-axis)				
Touchscreen:		no				
Barometric altimeter:		yes				
Camera:		no				
Geocaching-friendly:		yes (paperless)				
Custom maps compatib	<u>ole</u> :	yes				
Photo navigation (navig	ate to ge-	Ves				
otagged photos):		yoo				
Outdoor GPS games:		no				
Hunt/fish calendar:		yes				
Sun and moon informat	ion:	yes				



Tide tables:	yes
Area calculation:	yes
Custom POIs (ability to add additional points of interest):	yes
Unit-to-unit transfer (shares data wire- lessly with similar units):	yes
Picture viewer:	yes
Garmin Connect™ compatible (online community where you analyze, catego-rize and share data):	yes

• Specifications obtained from www.garmin.com



APPENDIX D

LIST OF MAPS (IN MAP POCKET)

VLF EM Plan Map (1:10000)

1) Q2154-TIGER-HARKER HERITAGE-AREA 9-VLF

TOTAL MAPS = 1





TIGER GOLD EXPLORATION CORPORATION

HARKER HERITAGE PROPERTY Area 9 Harker Township, Ontario

VLF IN PHASE/OUT PHASE PROFILE 24.0kHz NAA - CUTLER USA

In Phase: Posted Right/Bottom (Red) Out Phase: Posted Left/Top (Blue)

Vertical Profile Scales: 2 %/mm

Station Seperation: 25 meters Posting Level: 0

GSM-19 VLF v7

Operated By: Bruce Lavalley Processed by: C Jason Ploeger, B.Sc. Map Drawn By: C Jason Ploeger, B.Sc



Drawing: Q2154-TIGER-HARKER HERITAGE-AREA-9-VLF